Regency
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PROFESSIONAL 2 WAY action radio

DATE 6/11/82

SSC Service Bulletin

no. 82-248

TO: ALL REGENCY COMMUNICATIONS PROFESSIONAL SALES & SERVICE CENTERS
ALL REGENCY COMMUNICATIONS PROFESSIONAL SALES REPRESENTATIVES

MODELS AFFECTED: XLH252, XLH257, XLHC252, XLHC257

ITEM: DESIGN CHANGES TO IMPROVE RADIO PERFORMANCE IN HIGH SYSTEMS NOISE ENVIRONMENTS

DISPOSITION:

Radios built after April 1982 have the following changes incorporated. They are subdivided into four basic groups.

1. Chassis modifications
2. VCO Board modifications
3. PA Board modifications
4. Main Board modifications

After modifications, the radios were retuned using the regular tuning procedure TP-14-281.

Revised schematics are included in this service bulletin.

(1) and (2) Chassis and VCO Board Modifications (Refer to Diagrams #1 and #2)

The mic connector has the following three capacitors added: C582, C583, C584 (See diagram #1)

The V+ lead has C585 added to Gnd.

All of the above added capacitors are Part #1523-0151-002.

The VCO Board has been modified thus: (Refer to Diagram #2)

a. Cut track as indicated.
b. Changed C206 to 100µF 10V (1513-0101-001)
c. Changed C213 to 100µF 10V (1513-0101-001)
d. Added R213 - 150Ω in place of jumper (4704-0151-032)
e. Added JU201 - insulated jumper on underside

Applies only to Rev. "C" VCO Bd

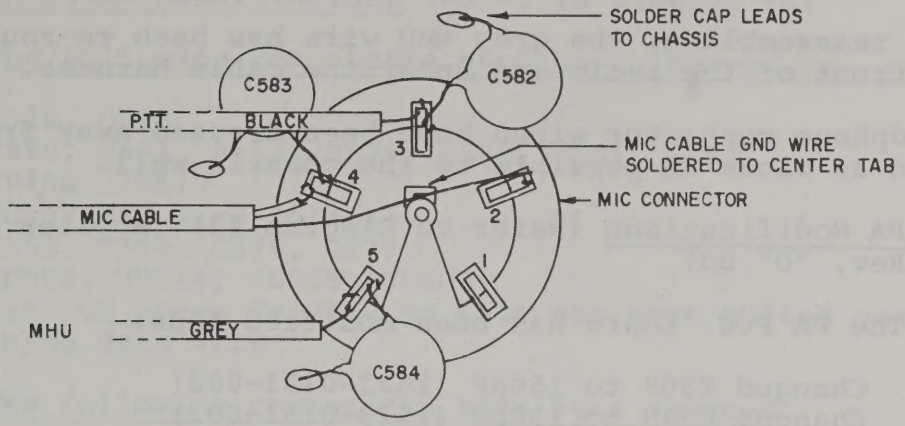


DIAGRAM #1 - MIC CONNECTOR

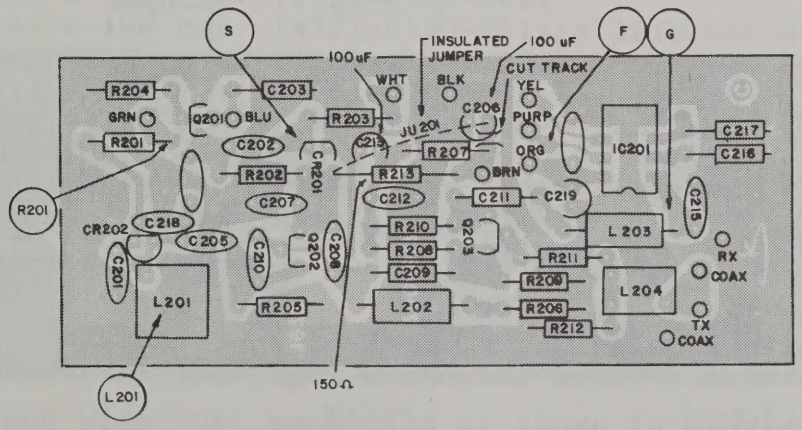


DIAGRAM #2 - V.C.O. BOARD

Upon reassembling, the grey MHU wire has been re-routed towards the front of the radio and under the cable harness.

Microphone connector wires have been dressed away from the VCO Board as close as possible to the chassis wall.

(3) PA Modifications (Refer to Diagram #3) (Applies only to Rev. "D" Bd)

The PA P.C. Board has been modified thus:

a. Changed C309 to 150pF (1523-0151-002)
   Changed C305 to 150pF (1523-0151-002)
   Changed C314 to 150pF (1523-0151-002)

b. Added C322 - 150pF on underside L308 to Gnd (1523-0151-002)
c. Removed black wire (to KØ)

Upon reassembling, the red and yellow wires have been neatly tucked close to the Main Board.

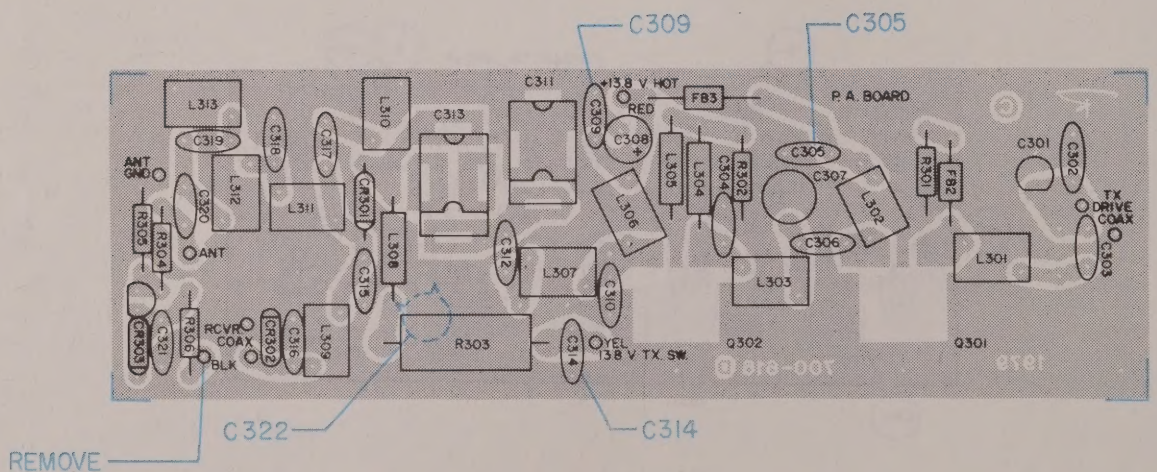


DIAGRAM #3

(4) Main Board Modifications (Refer to Diagram #4)

a. The following components have been removed.

Q512, Q513
R450, R451, R452, R579, R580, R581, R582
CR406, JU510
IC507, KØ wire (black)
C553, C555, C574, C575
JU509, JU514, JU515, JU403
End of green V+ wire to C574 has been pulled out
White data wire

b. The following components have been changed.

R537 from 4.7K to 47K (4704-0473-032)
R538 from 2.2K to 22K (4704-0223-032)
R502 from 470K to 220K (4704-0224-032)
C544 from 470pF to 150pF (1523-0151-002)
C545 from 470pF to 150pF (1523-0151-002)
C546 from 470pF to 150pF (1523-0151-002)
C550 from .05µF to 150pF (1523-0151-002)
C551 from 470pF to 150pF (1523-0151-002)

c. The following components have been added. (Refer to Diagram #5)

C575 = 150pF (1523-0151-002)
C414 = 150pF (1523-0151-002)
C473 = 150pF (1523-0151-002)
C558 = 150pF (1523-0151-002)
C553 = 470pF (1523-0471-002)

Also, the following have been added. (Refer to Diagram #6)

C555 = 47µF 10V (1513-0470-001)
C574 = 150pF (1523-0151-002)
C559 = 10µF 16V (1513-0100-002)
R580 = 10K var (4751-0103-001) - lift-out wiper arm
R581 = 1K (4704-0102-032)
Q512 = A05 (4801-0000-005)
L507 = 1µH choke (1803-3268-210)

d. Added JU530 on the speaker terminal (black ground wire) to speaker chassis (See Diagram #7).

Added Data Line on underside (Diagram #5) and cut track as indicated.

Removed the black V - lead from the board and soldered to chassis at the input connector using a short length.

Green wire (V+) connected as shown in Diagram #6.

R580 is turned CW for increased output power.

TOTAL REPAIR PARTS REQUIREMENT

DEVICE	PART NUMBER	QUANTITY
10µF 16V	1513-0100-002	1
47µF 10V	1513-0470-001	1
100µF 10V	1513-0101-002	2
150Ω	4704-0151-032	1
150pF	1523-0151-002	18
470pF	1523-0471-002	1
47K	4704-0473-032	1
22K	4704-0223-032	1
220K	4704-0224-032	1
1K	4704-0102-032	1
A05	4801-0000-005	1
1µH	1803-3268-210	1
#22 buss wire	6022-0000-001	1.5"
insulation	3101-0000-023	1.0"

Note that, although Diagrams 4, 5, and 6 are of the XLH252, they pertain equally to the XLH257, XLHC252 and the XLHC257 as far as the modifications are concerned.

TECHNICAL SERVICE DEPARTMENT

REGENCY COMMUNICATIONS, INC.

DIAGRAM #4

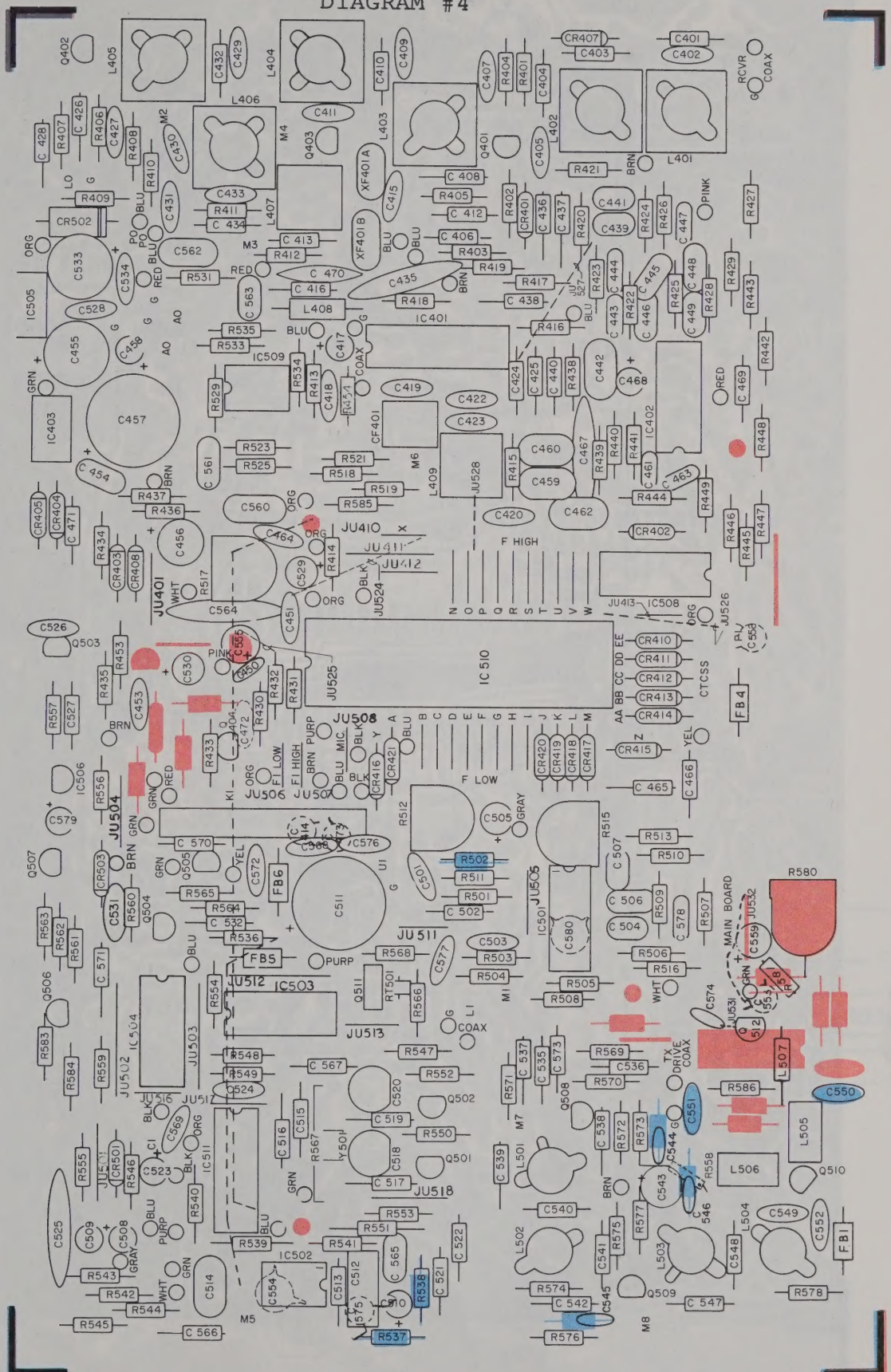
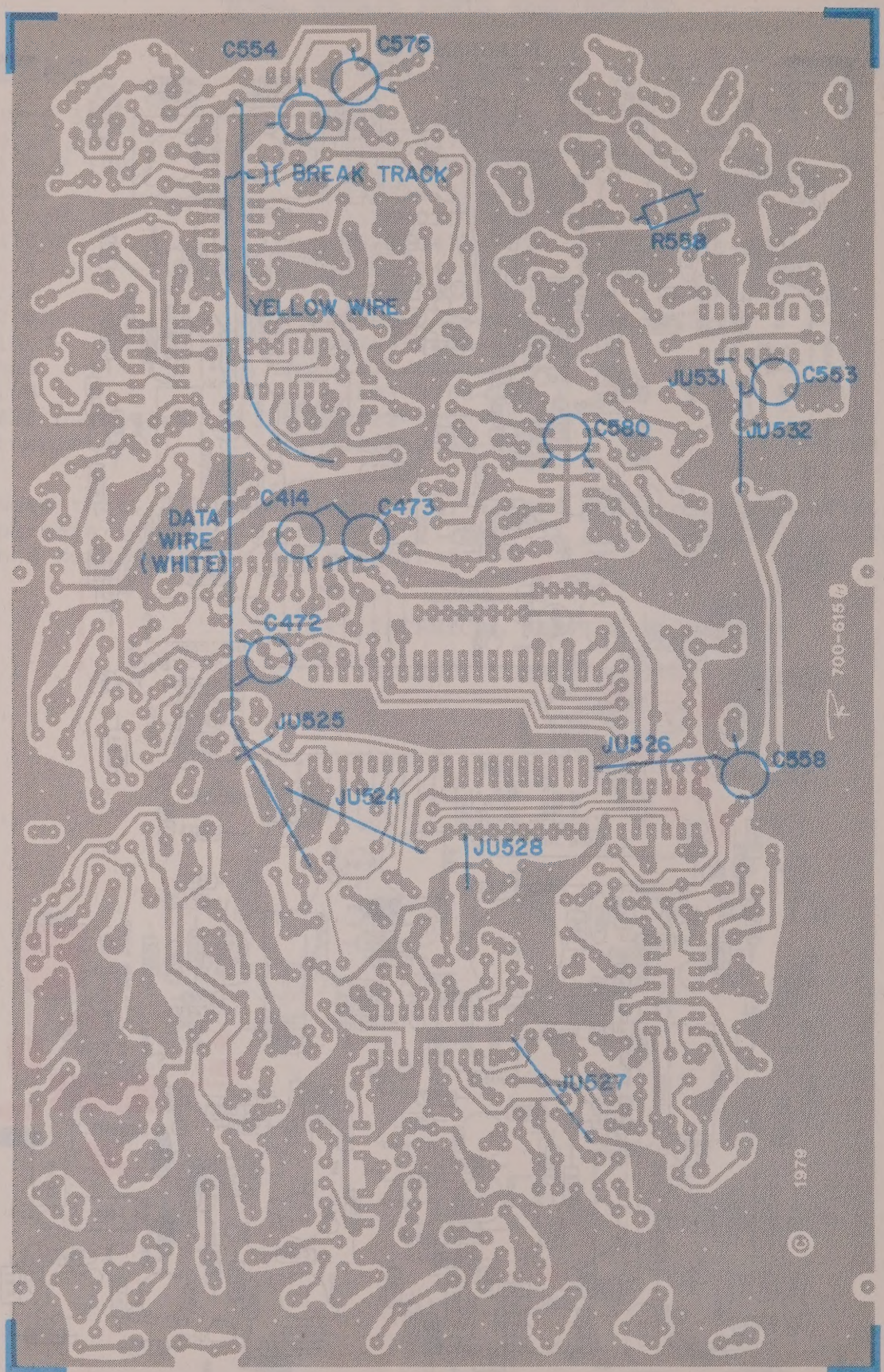


DIAGRAM 5 UNDERSIDE COMPONENTS XLH 252



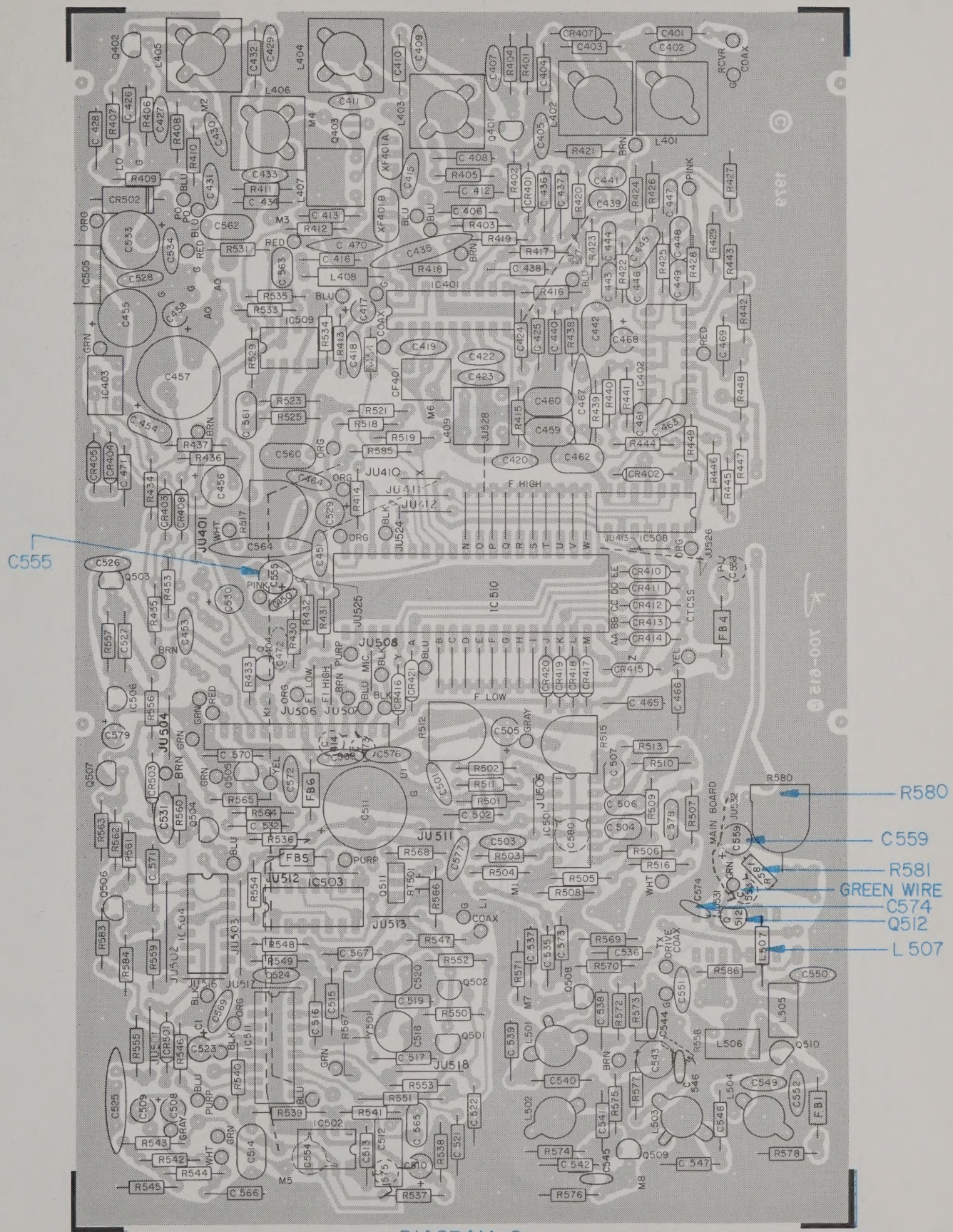


DIAGRAM-6-

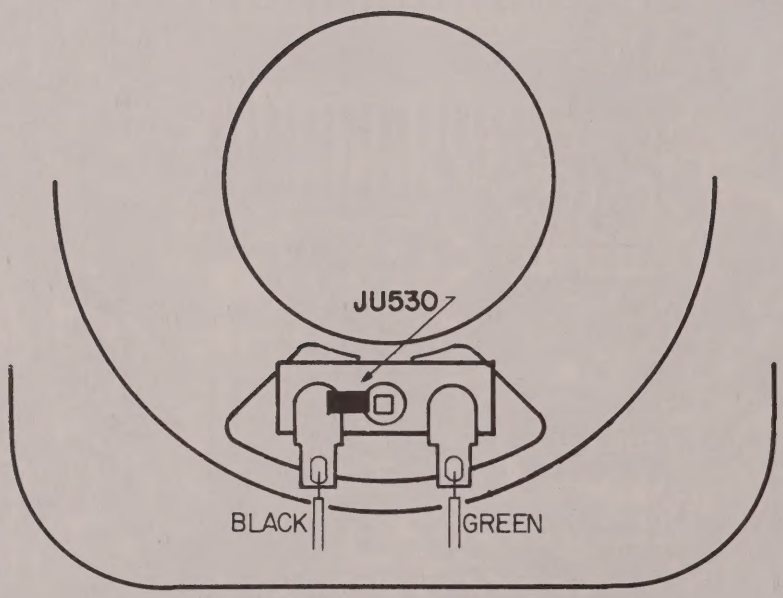



DIAGRAM 7
SHOWING JU530